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SUBJ/PUBLIC AFFAIRS-NAVAL SERVICE MEDICAL NEWS (NSMN) (94-34)//
POC/P.C. BISHOP/CAPT/MED-00P (PUBLIC AFFAIRS)/-/TEL:(202)653-
1315/TEL:DSN 294-1315//

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2. HEADLINES AND GENERAL INTEREST STORIES THIS WEEK:
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HEADLINE: Navy Medical Officer Reaches the Stars

Kennedy Space Center, FL (NSMN) -- "T minus six minutes:
Discovery, this is Control. The shuttle access arm is away.
You're on your own. Initiate APU prestart."

San Diego Bay off Coronado is calm at dawn. Wisps of
condensation rise off the water's surface as CDR Jerry Michael
Linenger, MC, strides toward shore carrying an 11-foot kayak. An
assembly of skittery sandpipers watches cautiously as he gently
slides his personal craft into the warm bay water.

"Discovery, we have you switching on internal power."

Linenger slides into the kayak's single body port amidships.
Balancing himself, he takes one last glance across the bay toward
the San Diego skyline still shrouded in a light fog and studies
shipping traffic in the bay. He visualizes his route north, to
Point Loma.

"We show H-two tank pressurization at 100 percent. You are
a go for launch."

One last tug on the zipper of his wet suit. He positions
the single oar near his chest and hears the water trickle from
one paddle as he raises it over his shoulder while lowering the
opposing end in the water slightly forward of him.

"...5 ...4 We have main engine start ...2 ...1 ...zero.
SRB ignition."

Linenger's arms, like human solid rocket boosters, pull back, the water surges, and he moves away from shore, leaving a thin watery trail in the kayak's wake. Sea gulls above signal his otherwise quiet departure.

Until today, 9 September, there were few ways of commuting to work more exhilarating to Linenger, a former Naval Medical Center San Diego surgical intern, than those in which he kayaked from his home on Coronado to his office at the Naval Health Research Center on Point Loma.

Until today -- when, at 1630 eastern time, two fiery plumes registering 5.3 million pounds of thrust, slightly more than that required to launch a 48-pound kayak, will lift the San Diego resident along with three other mission specialists into Earth's orbit aboard the space orbiter Discovery.

In a sense, Linenger's flight into orbit this afternoon was conceived while camping in the Canadian wilderness as he watched Astronaut Neil Armstrong make one giant leap for mankind on a generator-powered television 20 July 1969.

"When I saw that historic step, watched a human being walk on the surface of the moon, I knew then exactly what I wanted to do with my life," Linenger said during an interview prior to his launch.

Ever since then, the youngster from Eastpointe, MI, has embarked on an academic and athletic quest that would eventually lead him to the stars.

"I've always been a student of applied curiosity," Linenger said. "I wanted to not just see things people have never seen before, I wanted to experience things people have never experienced before.

"I believe in doing things a little bit differently," he said. "Being in space -- working there -- is about as different as you can get. It's an environment that demands everything from you, mentally, physically and spiritually."

Linenger has always believed in honing all three. He is a graduate of the U.S. Naval Academy, where he finished number four in a class of 950. He holds masters degrees in public health and systems management. When he received his doctorate degree in medicine, he graduated in the top five percent -- not just of fellow students, but of all medical students nationwide.

Of course, that's just the cerebral stuff. Linenger never let his 6-foot, 162-pound frame weaken during academic pursuits. He remained a competition triathlete, open-ocean swimmer and marathoner. He still competes, at 39. Scuba diving is a hobby. He calls carpentry, brick laying and heavy cement work "around-the-house" skills.

When the demands of his most recent position as principal research investigator at the Naval Health Research Center ate into his athletic schedule, he countered with a creative program that allowed him to continue his research and maintain his vigorous physical conditioning.

"I had heard somewhere that a long-time resident SEAL used to swim to work across the bay," Linenger recalled. "I thought that was a pretty good idea, so I just added to the idea."

Once across the bay, Linenger would stow his kayak, unless

he swam, at the Naval Training Center marina where he made his landing, then continue to Point Loma by bike.

"The first time I saw him arriving at work on that bike, I thought he was drenched in sweat," recalled CAPT Larry Dean, MSC, then Linenger's executive officer, now the commanding officer of the Naval Health Research Center. "So I asked him about it. That's when I learned he swam to work. While he was telling me it hadn't taken long -- 45 minutes or an hour -- I was uttering something like, 'You did WHAT?'"

"There is no doubt. Commander Linenger is an amazing person, not just because of his iron-man look, but because of the iron man way he approaches everything," Dean said.

Linenger is not a man who likes to be at rest.

Indeed, with the successful launch of Discovery, Linenger is likely traversing an orbital path around the planet at speeds approaching 17,000 miles per hour. He'll be watching sunrise and sunset every 45 minutes. He'll circle the Earth every 90 minutes.

"I remember my wife, Kathryn, asking me if I was getting nervous," Linenger said before the launch. "Well, really, I wasn't. We were getting so immersed in the training there really wasn't much time. Sure, there was some anticipation, but it's really hard to consider the real thing.

"Then we went down to Cape Canaveral. And we saw the orbiter poised there (it stands 184 feet in the air). That's when I realized this was really going to happen. I was ready to go.

"This is the fulfillment of the dream of a lifetime," Linenger declared.

The countdown to the dream is this afternoon. Then, seconds after the scheduled 1630 launch, the shuttle will wind out at speeds approaching mach five and perform maneuvers roller coaster engineers would die to harness.

"We will probably execute a 142-degree roll maneuver, putting the Discovery on its back, and then cruise up the U.S. eastern seaboard on a compass heading of 38 degrees taking it just over Cape Hatteras, North Carolina," Linenger said. "Eventually, we'll hit speeds of mach 13."

Minutes later: orbit, zero gravity, intense radiation, searing heat and bone-numbing cold -- the anti-human environment of space. But that's not how Linenger sees it. To him, it is the starlit desktop of the perfect environmental laboratory where his medical research will help him study methods to help humans dwell comfortably in such environmentally hostile surroundings.

"One of the studies I will conduct will focus on the effect of gravity on the human body," Linenger said. "Previous Soviet tests showed that certain exercises were effective in mitigating physical losses in a nongravity environment."

Linenger said he will use a treadmill aboard Discovery to measure heart rate values during the nine-day mission, among other things. "We all will be assisting with each of the missions," he noted. The numerous experiments scheduled include testing of a personal "rocket-pack" propulsion device, laser measurements of the volume of the Earth's troposphere, payload

experiments and other experiments only dead-serious science fiction buffs could love.

At some point, Linenger promised to take some time out.

"I think I'll have a couple of opportunities to get some pretty good shots of my home town and San Diego," he said.

Still, adventures in space are more than personal exhilaration, even for adventure-seeker Linenger.

"It's all for the good of humanity," he declared. "There is always the question of whether space exploration is worthwhile when there are so many social and economic problems on Earth. But what space exploration really does is pull people together from all over the planet who dedicate themselves to one cause.

"Space is the new wilderness. Humankind has grown. And if we didn't explore, how far could we have gotten?"

Story by H. Sam Samuelson, NMC San Diego

MEDIA NOTE: Linenger is due to return to San Diego following his return to Earth. Media representatives who wish to arrange an interview with the mission specialist should contact LCDR Marcella McCormack at the Naval Health Research Center, (619) 553-8400.

-USN-

HEADLINE: Navy Medical Deploys Again

NNMC Bethesda, MD (NSMN) -- This week, more than 1,100 personnel assigned to shore billets at Navy Medical commands throughout the United States are deployed in support of Navy and Marine Corps operational forces. This is in addition to the nearly 30 percent of Navy Medical personnel normally assigned to deployable units. Nearly 550 are aboard USNS Comfort (T-AH 20) alone.

When 276 members of Comfort's crew left National Naval Medical Center Bethesda 7 September to join the ship in Norfolk, the morning's events included a bit of everything. NNMC's ceremonial band provided mood music while food was served to the departing Sailors by an unusual galley crew -- Navy Surgeon General VADM Donald F. Hagen, MC, and NNMC Commander RADM Richard I. Ridenour, MC, among others. And amidst the cake, punch, cookies and coffee, a lot of people were saying goodbye ...

... again.

This has been an up and down sort of summer for Navy folks stationed at the medical center. Comfort first deployed at the end of May, was brought back three weeks ago and is now headed back to the Caribbean.

One would think people would get accustomed to saying goodbye to their loved ones -- would get hardened. After all, this is the Navy, the Navy of the old slogan, "Join the Navy and see the world," so what's the big deal?

The big deal is, no matter how dedicated to medicine and the Navy, no matter how proud to wear the Navy uniform, no matter how dedicated to helping people, to serving one's country ... It is never easy to say goodbye.

The surgeon general put it best in his farewell remarks to the departing troops. "When the Comfort was sent to the Persian Gulf, it was its first-ever deployment," said Hagen. "This is a

different world now, the world has changed. Our new challenge is to help people, and we will be doing more of this in the future. You will be helping people in two different cultures, providing health care to those who desperately need it."

Then the band played "Anchors Away," the buses pulled out, and another tearful goodbye was over.

As Hagen said, "God bless you and hurry back."

Story by Teal Ferguson

-USN-

HEADLINE: Telemedicine Extends Medicine's Reach With Technology
NNMC Bethesda, MD (NSMN) -- Telemedicine is an up and coming project for the medical community. It allows both audio and video communication around the world. Although still in the fine-tuning stage, it will one day be in all Navy Medical facilities and probably in isolated areas in the civilian community.

On 1 September, Secretary of the Navy John H. Dalton visited the National Naval Medical Center and received a briefing and demonstration on how telemedicine works from CAPT Donald Jensen and CDR Dave Lawrence of NNMC's Radiology Department.

The first image was a subtle fracture of a hand sent by USS George Washington (CVN 73). "This equipment allows us primary diagnostic capability," said Jensen, adding that not much is lost in the transmission. "This machine is almost better than the actual film, because of the windowing capabilities," Jensen continued. "We can make allowances if the technologist has over or under exposed the film. We can't do that with hardcopy film." By making those minor adjustments on the screen, they don't have to expose the patient to more radiation or make another film, which saves money.

Physicians have the ability to annotate directly on the screen and send the image back to where it came from or send it to another hospital. "We can also completely invert the image so that what was black is now white and vice versa," said Jensen. "It distorts the mind's image of what a bone should look like and the provider may be better able to pick up a subtle fracture.

"This is not alien to the radiology community. CT scans, MRIs and ultrasounds all come up on screens like these and we're familiar with manipulating the screen image to get the picture we want to look at."

One part of telemedicine is the satellite phone hook-up. They were able to get through by satellite phone to the aircraft carrier, which is deployed in the Indian Ocean. CAPT Sprigg, the ship's commanding officer, came on the line and expressed his admiration for telemedicine.

"I can say that from an operational viewpoint, our experience has been positive. We've evaluated over 33 patients and avoided sending at least 12 off on medevacs, which not only saved money but also keeps my readiness higher," said Sprigg.

Dalton then asked Sprigg to expand on what this technology has done for him in preventing medevacs and keeping up readiness. "We cannot bring all the specialists we need when we deploy," said Sprigg. "With us as the center hub, we can provide not only

our ship, but the entire battle group or any ships in the vicinity with immediate consult capability. That's a tremendous expansion of our abilities here."

Another part of the system is teleconferencing. Two hook ups were demonstrated, one in Zagreb, Croatia, the other in Guantanamo Bay, Cuba. The video screens were a bit fuzzy, but the audio was crystal clear. Broadcast quality video -- what you usually see on cable TV -- is transmitted at 92 million bits per second. This video was transmitted at 56,000 bits per second, which is quite a drop. Emerging technology may allow improvement in the future.

The case in Zagreb dealt with an Egyptian army colonel who had taken a mortar round in his leg. Lawrence said there had been the possibility the man would lose the leg. "Using telemedicine capabilities between Zagreb and San Diego," he said, "they were able to stabilize the patient and perform a bone lengthening procedure."

"The patient had lost approximately 15 cm of bone out of the femur," said CAPT Gregg Parker, MC, commanding officer of the Zagreb hospital. "The problem was how to replace lost bone." They used telemedicine to transport the images of X-rays to Naval Medical Center San Diego. "The bone transport system was sent from San Diego and we transported part of the femur that was left to bridge the gap," said Parker. "We expect to be able to salvage the entire extremity, which otherwise may have resulted in an above-the-knee amputation." All this was done without transporting the patient anywhere.

"Because of telemedicine and good communications, this man has two (lower) extremities and will be completely functional, once fully recovered," concluded Parker.

"Great job," said Dalton. "I think it shows the great value of this new technology and I am pleased to see that you and your people are using it to its maximum capability."

The conversation then shifted to CAPT G. Gibson, MSC, commanding officer of U.S. Naval Hospital Guantanamo Bay, Cuba. "We just got the telemedicine on board when USNS Comfort (T-AH 20) left here last month," said Gibson. "We've been using it to talk to ships at sea and I think it's helping both of us."

"It's almost mind boggling what this can do to enhance the medical care for our deployed Sailors and Marines," said Dalton. "I'm pleased to hear how you have used it already."

It's fine that we can converse and see physicians in other parts of the world and understand them. But what about talking to people who don't speak English? Yet another facet of telemedicine is the medical translating system. It was developed by a physician at the Naval Aerospace and Operational Medical Institute in Pensacola, FL.

CDR Michael Greenauer, Naval Medical Information Management Center, demonstrated the machine. "The provider, nurse or even patient selects a phrase from the screen. The machine then speaks the phrase in the particular language chosen," said Greenauer. "All the questions have been designed to be yes/no, point movement (point to where it hurts) or instructional uses for the patient, like roll over." The voice came out very

distinct and clear.

The system has the capability of 30 languages. "The Public Health Service has also asked the designers to add the Navaho language," said Greenauer, which would assist caregivers on Navaho reservations.

When the demonstrations were finished, Dalton gave a few closing remarks. "This has been an exciting day for me to see this new program," he said. "I think telemedicine has great potential. we've seen three places where our Sailors and Marines are performing. I want to commend you, Vice Admiral Hagen, and your people for the fine job you've done and the success of this project. You have my complete support as we go forward."

Story by JO2 Sue Roland

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HEADLINE: Teleconferencing Saves Time and Money, and It's Easy
NAVHOSP Jacksonville, FL (NSMN) -- "High tech" is becoming a common word in our automated, mechanized, computerized, digitized, high speed, low drag world. And the Information Highway is littered with time-saving devices that are too complicated for the average mortal to operate. Successfully programming a VCR is a significant triumph for most of us. Which makes it all the more amazing that something called "video teleconferencing" could be easy to do and save time and money.

Naval Hospital Jacksonville recently was faced with a training challenge. Training in a new procedure that was researched and developed by an Army nurse at Madigan Army Hospital in Tacoma, WA, was offered to nurses at both Naval Hospital Jacksonville and Naval Hospital Camp Pendleton, CA. The first phase of training called for 16 staff members from Florida and eight from California to be trained. With the trainer in the state of Washington, it was going to be an expensive evolution no matter what location was chosen for the training. Travel and per diem costs would be in the thousands.

Then someone had a better idea. What about teleconferencing? Doesn't the Naval Aviation Depot (NADEP), right down the street from Naval Hospital Jacksonville, have teleconferencing capability? Would it be possible to connect the trainer in Washington with the students in Florida and California? How effective would be training conducted in this fashion, and how much would it cost?

Soon the questions were answered. The NADEP Video Teleconferencing Center (VTC) was a well-equipped, modern facility. Not only do you hear what someone is telling you, but you can see what they're really saying from their facial expressions and body language. It also communicates other vital information fast, with supporting graphics, video tape and much more.

CDR Susan Lensing, NC, coordinated the Jacksonville portion of the training and was also a trainee. "This was the next best thing to all of us being in the same room, and in many ways it was better. Drawings and photographs were easier to see than if they were projected in a classroom," said Lensing. "The biggest advantage was the cost savings. We estimated that if we had our

nurses travel to Madigan Army Hospital, it would have taken three days and more than \$20,000 for travel, per diem and the salaries for 16 nurses. Our training session lasted four hours and our total cost was \$400. A fantastic savings, and we didn't miss three days of patient care."

Story by Bob Hines

-USN-

HEADLINE: Marines Keep JTF-160 Rolling at Guantanamo Bay

JTF-160 Guantanamo Bay, Cuba (NSMN) -- Providing water and fuel around the clock to help support the care of nearly 14,000 Haitian migrants and almost 2,000 military members may sound like a monumental task, but to 35 Marines of 8th Motor Transport Battalion, 2d Force Service Support Group, it is an ongoing daily challenge.

"We are accomplishing the mission by working 24 hours a day, seven days a week," said Sgt Mark Cumiskey, platoon sergeant for the detachment. "I've got my Marines broken down into three duty sections and they're just driving their butts off. The Haitians in one camp can go through a 400-gallon water bull in an hour, so the water truck is constantly running."

The Motor Transport Marines have been working around the clock like this since June. The working hours have gotten even longer for the Marines with the opening of operations at Grand Turk Island and operations here expanding to handle up to 23,000 Haitians.

The Marines transport people and pallets of cargo, supply fuel for the generators for all the camps, and supply water to the Joint Task Force overseeing area operations, JTF-160, as well as to the Haitian camps.

Since the beginning of operations here, the Marines have moved almost 9 million pounds of cargo, issued over 6,500 gallons of fuel and delivered 142,000 gallons of water.

Story by Cpl Jim Davis, reprinted from The Guantanamo Bay Gazette courtesy of MCNews 36-94

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3. Professional Notes: Information on upcoming symposiums, conferences or courses of interest to Navy Medical Department personnel and wrap-ups on ones attended. Anyone with information to share in this section should contact the editor (see the last paragraph of this message on ways to do so).

Scheduled Meetings:

-- 17-20 September 1994, Hospital Epidemiology Training Course, Chicago. For information, contact SHEA Meetings Department, 875 Kings Highway, Suite 200, Woodbury, NJ 08096-3172; (609) 845-1720.

-- 21-22 September 1994, Fourth Annual Symposium on Health Care Ethics, Naval Air Station Glenview, IL. Sponsored by NavHosp Great Lakes, Bioethics Committee. For information call CDR F.E. Rodriguez, NC, Bioethics Committee Chair, at (708) 688-5929, DSN 792-5929.

-- 1-5 October 1994, the Seventh Annual Surgeon General's Leaders' Conference, Reston Hyatt Town Center Hotel, Reston, VA.

BUMED Washington message dtg 031500Z AUG 94 has details.

-- 17-28 October 1994, Operational Entomology Training, Navy Disease Vector Ecology and Control Center, Jacksonville, FL. For information, contact the DVECC Training Department at (904) 772-2424, DSN 942-2424, FAX (904) 779-0107.

-- 7-18 November 1994, CDC Epidemiology in Action course, Atlanta, GA, call (404) 727-3485 for more information. Registration deadline is 15 September.

-- 13-18 November 1994, Association of Military Surgeons of the United States' Annual Meeting, "Unity Through Diversity," Orlando, FL, (301) 897-8800.

-- 20-24 March 1995, Shea-Arentzen Nursing Symposium 1995, "Navigating New Frontiers of Nursing Practice: The Challenges of Health Care Reform," La Jolla, CA. "Call for Papers" deadline is 15 September 1994. Contact CDR Chris Laurent, NC, or CDR Bill Aiken, NC, at DSN 522-6412 or (619) 532-6412 for more information.

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4. September observations and events occurring 14-23 September:
SEPTEMBER

National Sickle Cell Month (213/736-5211)

Women in Medicine Month (312/464-4392)

Baby Safety Awareness Month

Children's Eye Health and Safety Month (1-800-331-2020)

Leukemia Society Month (1-800-955-4LSA)

National Cholesterol Education Month (301/251-1222)

14 September: Ombudsman Appreciation Day

14-15 September: Yom Kippur (Day of Atonement begins at sundown)

15 September: E-6 Advancement Exam

15 September - 15 October: Hispanic Heritage Month

16 September: POW/MIA Recognition Day

17 September: Vote! Hawaii Primary

17 September: Citizenship Day

17 September: U.S. Constitution Day

17-23 September: Constitution Week

18-24 September: Prostate Cancer Awareness Week

18-24 September: National Rehabilitation Week (717/348-1497 or 1498)

20 September: Vote! Massachusetts and Washington Primaries

23 September, 0219 ET: Fall Equinox -- First Day of Autumn

-more-

HEADLINE: October is Child and Adolescent Health Month

AAP Elk Grove Village, IL (NSMN) -- The American Academy of Pediatrics has designated October as Child and Adolescent Health Month. The theme is "Solutions before Problems," with a focus on violence prevention -- in the media, by teaching firearms safety, and promoting personal nonviolent conflict resolution.

There are few things more important than the health and well-being of our children. They are the future -- our future. How they experience their childhoods determines the strength of our communities, our institutions, and our nation in the years

ahead.

The AAP established October as Child Health Month to focus attention on prevention as the key to healthy children. Preventive care is the foundation of pediatric practice.

Prevention literally means keeping something from happening in the first place, and can also mean stopping something from happening and making sure it doesn't happen again.

The focus this year is on violence prevention. Violence in our society affects us all, either directly or indirectly. Whether real or perceived, it undermines our basic sense of security by promoting fear, distrust and paranoia. Most experts agree that violence is a major U.S. public health problem.

The American Academy of Pediatrics has numerous resources to assist professionals and lay person alike with prevention efforts, such as camera-ready materials that when copied make instant handouts, public education brochures, a parent resources guide that lists AAP-endorsed programs and videos, speakers' kits with scripts and slides, and a speaker's bureau of members willing to talk to community groups or the media on a variety of children's health-related topics.

Spread the word -- October is Child and Adolescent Health Month -- a time to help make children's health and well-being a national priority.

For additional resources on violence prevention or children's health, write: Children: Our Future, American Academy of Pediatrics, P.O. Box 927, Dept. C, Elk Grove Village, IL 60009-0927.

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